

# AC214 Series

Premium, Low Frequency Accelerometer, Top Exit 2 Pin Connector, 1,000 mV/g,  $\pm 5\%$



**Yekan**  
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## Product Features

Designed for Low-Speed Rotors, Wind Turbine Main Bearings, Gear Box Inputs, and May Also Be Used for High Frequency Detection

May be Used with Any Application That Requires Low and High Frequency Measurements

► 1000 mV/g Sensitivity

► 0.1 Hz to 10 kHz Frequency Response ( $\pm 3\text{dB}$ )

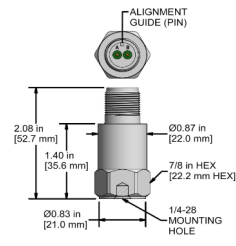
► Standard 2 Pin MIL Connection or Integral Cable  
Note: Integral Cable Options are Only for Permanent Monitoring Applications .

-6N Integral Cable Option Features Food Safe FDA Compliant 21 CFR 177.1330 Polyolefin Heat Shrink

### AC214-1D

2 Pin Connector

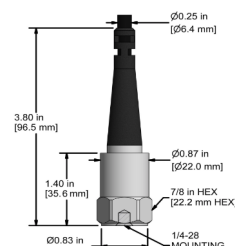
| Connector Pin | Polarity          |
|---------------|-------------------|
| A             | (+) Signal/ Power |
| B             | (-) Common        |



### AC214-2D

CB103 Integral Cable

| Conductor | Polarity          |
|-----------|-------------------|
| Red       | (+) Signal/ Power |
| Black     | (-) Common        |
| Shield    | Cable Drain Wire  |

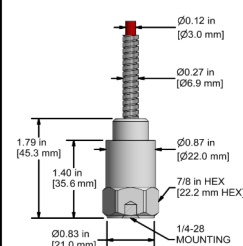


Built To Order

### AC214-3D

CB206 Amroed Integral Cabel

| Conductor | Polarity          |
|-----------|-------------------|
| Red       | (+) Signal/ Power |
| Black     | (-) Common        |
| Shield    | Cable Drain Wire  |

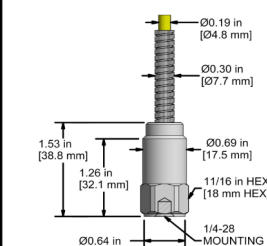


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### AC214-6D

CB611 Heavy Duty Amroed Integral Cable

| Conductor | Polarity          |
|-----------|-------------------|
| Red       | (+) Signal/ Power |
| Black     | (-) Common        |
| Shield    | Cable Drain Wire  |

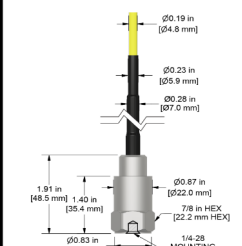


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### AC214-6N

CB111 FEP Jacketed Integral Cable

| Conductor | Polarity          |
|-----------|-------------------|
| Red       | (+) Signal/ Power |
| Black     | (-) Common        |
| Shield    | Cable Drain Wire  |



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| Specifications                          | Standard                           | Metric                                                                       | Specifications              | Standard                 | Metric                       |
|-----------------------------------------|------------------------------------|------------------------------------------------------------------------------|-----------------------------|--------------------------|------------------------------|
| Part Number                             | AC214                              | M/ or M8/AC214                                                               | <u>Environmental</u>        |                          |                              |
| Sensitivity ( $\pm 5\%$ )               |                                    | 1000 mV/g                                                                    | Operating Temperature Range | -58 to 250 °F            | -50 to 121 °C                |
| Frequency Response ( $\pm 3\text{dB}$ ) | 6-600,000 CPM                      | 0.1-10000 Hz                                                                 | Maximum Shock Protection    | 5000 g, peak             |                              |
| Frequency Response ( $\pm 10\%$ )       | 18-480,000 CPM                     | 0.3-8000 Hz                                                                  | Electromagnetic Sensitivity | CE                       |                              |
| Dynamic Range                           |                                    | $\pm 7\text{ g}$ , peak<br>*V <sub>source</sub> $\geq 22\text{V}$ , 12V bias | Sealing                     | Welded, Hermetic         |                              |
| <u>Electrical</u>                       |                                    |                                                                              | Submersible Depth           | 200 ft.                  | 60 m                         |
| Settling Time                           | < 2 seconds                        |                                                                              | SIL Rating                  | SIL2                     |                              |
| Voltage Source                          | 18-30 VDC                          |                                                                              | <u>Physical</u>             |                          |                              |
| Constant Current Excitation             | 2-10 mA                            |                                                                              | Sensing Element             | PZT Ceramic              |                              |
| Spectral Noise @ 10 Hz                  | 1.3 $\mu\text{g}/\sqrt{\text{Hz}}$ |                                                                              | Sensing Structure           | Shear Mode               |                              |
| Spectral Noise @ 100 Hz                 | 0.2 $\mu\text{g}/\sqrt{\text{Hz}}$ |                                                                              | Weight                      | 3.25 oz                  | 92 g                         |
| Spectral Noise @ 1000 Hz                | 0.1 $\mu\text{g}/\sqrt{\text{Hz}}$ |                                                                              | Case Material               | 316L Stainless Steel     |                              |
| Output Impedance                        | < 100 ohm                          |                                                                              | Mounting Thread             | 1/4-28 Blind Tapped Hole |                              |
| Bias Output Voltage                     | 10-14 VDC                          |                                                                              | Connector (Non- Integral)   | 2 Pin MILC-5015          |                              |
| Case Isolation                          | > 10 <sup>8</sup> ohm              |                                                                              | Resonant Frequency          | 1020,000 CPM             | 17000 Hz                     |
|                                         |                                    |                                                                              | Mounting Torque             | 2 to 5 ft. lbs.          | 2.7 to 6.8 Nm                |
|                                         |                                    |                                                                              | Mounting Hardware Supplied  | 1/4-28 Stud              | M6x1 or M8x1.25 Adapter Stud |
|                                         |                                    |                                                                              | Calibration Certificate     | CA10                     |                              |

## Typical Frequency Response

